

D R A F T/cab
11 October 1967

DEVELOPMENT OBJECTIVES

ADVANCED 1540 LIGHT TABLE

Declass Review by NGA.

1. INTRODUCTION:

These development objectives describe the requirements to be met in the design and fabrication of a 15" X 40" light table.

2. CONCEPT:

This table is to be essentially an expanded and improved version of the Split Format Light Table currently under construction at and is intended for use with dual webs of film with widths varying between 70mm and 7.2 inches.

3. GENERAL DESCRIPTION:

This table shall provide a total 15" X 40" illuminated viewing surface composed of two 15" X 20" independently variable intensity Cold Cathode sources.

STAT A standard elevating table shall be an integral part of this equipment.

Both electrical and mechanical (hand crank) film drives shall be provided along

with an integral, multipurpose, microscope translation^{low} mount

4. REQUIREMENTS:

4.1. Illumination System

4.1.1. Intensity

4.1.1.1. Range. At full intensity the two illumination systems must each provide ^{a minimum of} ~~at least~~ 2500 foot-lamberts measured at the illumination surface, while a 3000 ^{foot-} lambert source is a desirable goal. Illumination shall not vary by more than ^{20%} ~~10%~~ between any two points on the entire illuminated surface.

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4.1.1.2. Variability. The intensity of each independent source illumination/shall be continuously variable through a range of ~~15%~~ ¹ to 100% of full intensity without visible evidence of "flicker". ^{Separate controls shall be provided}

4.1.2. Heat. The light table must be able to be operated continuously at maximum intensity over a 24-hour period, in a room with an 80°F ambient temperature, without exceeding 110°F on any external surface.

4.1.3. Diffuser. An opal glass or similar diffuser shall be located between the light source and the clear glass top.

4.1.4. Shades. An adjustable shade must be provided to mask out all of the viewing surface not actually covered by film. This shade must be located beneath the surface glass, mounted to the rear along the long dimension of the unit and be extendible across the short dimension. This extensibility must be continuously variable between a minimum extension of (0) zero inches and a maximum extension of 12.5 inches. This shade must not encroach upon the illuminated viewing area when retracted and, in addition, must be able to be locked in any extended or retracted position.

4.2. External Configuration

4.2.1. Size. The entire unit shall be of a size commensurate with that of the current table under design at allowing of course for the expanded illumination format; however, under no circumstances may the width exceed _____ inches to facilitate ready movement through standard doors.

4.2.2. Weight. The unit must be as light as possible without sacrificing good stability.

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